

REACH FOR THE SHAPES

THE MOST IMPORTANT DATES IN OUR HISTORY



1846

After the start-up of the Berlin - Vienna railway line (which ran through Kuźnia Raciborska), the first steel plant called "Nadzieja" ("Hope") is founded right next to the railway station. In the second half of the nineteenth century, a rolling mill and an cast iron foundry is added.

1889

Takeover of the factory by Wilhelm Hegenscheidt. During that time, the factory is manufacturing various building equipment and products for railways (such as bolts and axles for wheel sets).

1920

The first lathe for machining of heavy wheel sets is produced.

1946

The RAFAMET comes into being. During the next few years the company acts under the name "RAFO".

1964

As an economic experiment, RAFAMET (and two other Polish companies) acquires the right to independent export and import activities without the Foreign Trade Agencies.

1996

The company's shares are admitted to be traded on the over the counter market CeTO S.A., making it the first company in Poland to do so.

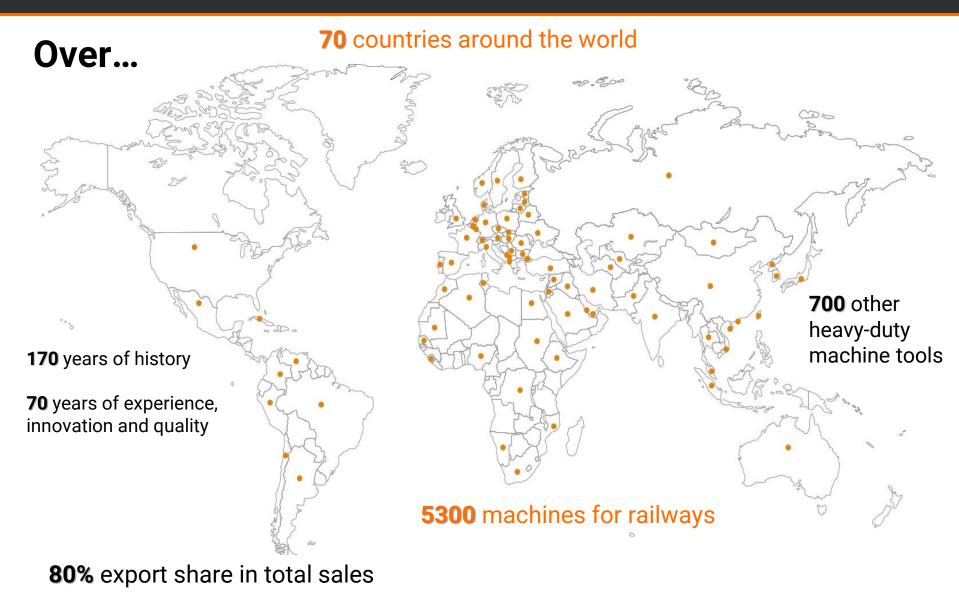
2007

RAFAMET S.A. makes its debut on the Warsaw Stock Exchange (Giełda Papierów Wartościowych w Warszawie S.A.)

2016

Acquisition of the PORĘBA 1798 trademark.







The RAFAMET Group, in which RAFAMET S.A. is the parent company, consists of six organizationally separated units. Each of them has the set of clearly defined strategic goals to achieve, as well as the specified share in the RAFAMET Group overall business activities.















RAFAMET Machine Tools RAFAMET Railways PORĘBA Machine Tools RAFAMET Service & Trade **RAFAMET** Foundry RAFAMET Large Part Machining

RAFAMET Group



RAFAMET S.A. Machine Tools is one of the worldwide leading companies in the field of designing and manufacturing medium and large size heavy-duty machine tools, including vertical turning & boring lathes. The vertical heavy-duty lathes are intended for turning and boring of cylindrical, conic and curved surfaces, as well as complex shaped large-size workpieces up to 350 tonnes, 16,000 mm diameter and 7,000 mm height of turning.

RAFAMET Railways is focused on machine tools for wheelset machining (wheels and axles), rail vehicle bogies. It also offers rail-road shunting vehicles, as well as measuring devices for the wheel geometry and flaw detection. Thanks to constant development of the product line and compliance with the requirements of customers, RAFAMET has developed a broad range of machining tools, including special-purpose wheel lathes for railways, metro, tram, and other light-rail transit systems and belongs to the top companies in this line of business on the global market.

RAFAMET Foundry Ltd. is a well-known manufacture of iron castings made from grey, ductile and alloy iron, which specializes in the production of large and heavy castings in small-batch series, weighing more than 5,000 kg. Iron castings are made to individual customer needs, based on the received technical documentation. Comprehensive service package includes: technical assistance in the selection of iron type, optimization of design & build of new pattern, adaptation of the patterns provide by the clients, iron castings, priming and machining. We also offer laboratory services, heat treatment and grinding castings and steel constructions as well as repairs using the METALOCK method.

POREBA Machine Tools Ltd. is the inheritor of the technical achievements of the FUM POREBA Ltd. and after its acquisition by RAFAMET S.A., solid member of RAFAMET Group. It is a manufacturer of CNC super heavy duty, heavy duty and medium centre and floor-type horizontal lathes, as well as large horizontal drilling machines and drilling & boring machines for deep hole drilling. The POREBA machine tools are used for roughing and finishing of workpieces of up to 100 tonnes in weight and up to 4,500 mm in diameter, made of grey iron, ductile iron, steel, custom steel and alloy steel. The machine tools are applicable in the metallurgical, mechanical, defense, power, mining, paper and shipbuilding industries.

RAFAMET Service & Trade assists the companies of the RAFAMET Group in providing after-sale services including technical support repairs and modernisations of the machine tools. The company also offers the products complementary to the basic assortment of the RAFAMET Group units, such as wheelset mounting and demounting presses, wheel measuring equipment and rail-road shunting vehicles.

RAFAMET Large Part Machining is directed to a selected group of customers interested in contract machining services on the large size CNC milling machines, as well as vertical turning and milling centres.



RAFAMET S.A.

Staszica 1

47-420 Kuźnia Raciborska

POLAND

Established: 1946

Main shareholder: ARP S.A. - 47 %

(Industrial Development Agency)

Employment: 550









COMPANY



- OWN DESIGN ENGINEERING & APPLICATION SOFTWARE OFFICE
- HIGHLY QUALIFIED, CREATIVE & EXPERIENCED STAFF
- **50 CAD WORKSTATION**











COMPANY VIEW





MACHINING WORKSHOP





FINAL ASSEMBLY WORKSHOP







PRODUCTS / ABOVE FLOOR WHEEL LATHES - FRICTION DRIVE



Type: UFB 125 N

Track gauge (mm): 1000 – 1676

Min. / Max. wheel tread diameter (mm): 600 / 1250

Max. width of wheel rim (mm): 150

Min. / Max. length of wheelset axle (mm): 1215 / 2840

Max. weight of wheelset (x10 kN):



Type: UFD 140 N

Track gauge (mm): 1435

Min. / Max. wheel tread diameter (mm): 540 / 1400

Max. width of wheel rim (mm):

Min. / Max. Length of wheelset axle (mm): 1650 / 2600

Max. Weight of wheelset (x10 kN):



PRODUCTS / ABOVE FLOOR WHEEL LATHES - CHUCK-TYPE



Type: UBF 112 N

Track gauge (mm):

Min. / Max. wheel tread diameter (mm):

Max. width of wheel rim (mm):

Min. / Max. length of wheelset axle (mm):

Max. weight of wheelset (x10 kN):

1435

700 or 850 / 1120 or 1250

145

1910 / 2360

3



Type: UDA 125 N

Track gauge (mm):

Min. / Max. wheel tread diameter (mm):

Max. width of wheel rim (mm):

Min. / Max. Length of wheelset axle (mm):

Max. Weight of wheelset (x10 kN):

1435

660 or 770 / 1250 or 1200

145

1645 / 2370

4.5



PRODUCTS / UNDERFLOOR WHEEL LATHES



Type: UGE 180 N / 2 UGE 180 N

Track gauge (mm): 1435

Min. / Max. wheel tread diameter (mm): 350 / 1270

Max. width of wheel rim (mm): 145

Max. weight of wheelset (x10 kN):



Type: UGE 300/400 N / 2 UGE 300/400 N

Track gauge (mm): 1435

Min. / Max. wheel tread diameter (mm): 600 / 1500

Max. width of wheel rim (mm):

Max. Weight of wheelset (x10 kN): 30 / 40



PRODUCTS / SHUNTING EQUIPMENT



Type: 3RS Rail-Road Shunter

- · Versatile applications thanks to rail and road drivability
- Excellent manoeuvrability thanks to four independently driven wheels rotating around their axes
- Easy control by means of portable panel (radio remote control)
- · Vented, robust lead acid battery with electrolyte refill
- Two adapter plates for couplers or two couplers
- Emission-free operations

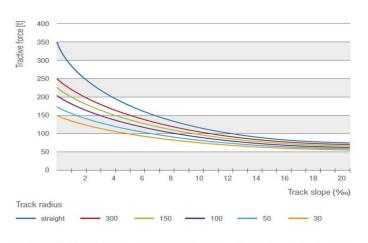


Fig. RAFAMET 3RS 350 Shunter. Towed weight in function of track slope and track radius



Track gauge (mm):	1435
Min. Turning radius (m):	30
Tractive force (kN):	Min. 17.5
Max. weight to shunt (tonnes):	350
Max. speed on road (kmph):	6
Max. speed on rails without load (kmph):	6
Max. speed on rails with load (kmph):	2

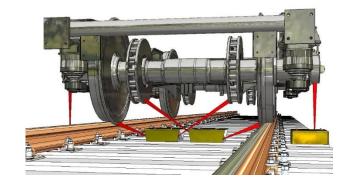
PRODUCTS / MEASUREMENT EQUIPMENT



Laser wheel geometry measurement

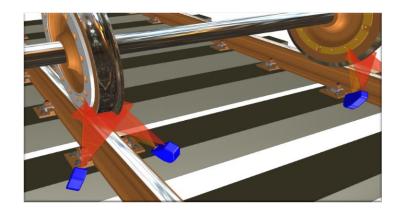


Temperature monitoring of axle boxes, braking disks and wheel rims



Wheel Flats detection





PRODUCTS / MACHINE TOOLS FOR RAILWAYS



Type: KCM 150 N Wheel Boring Machine

Table diameter (mm): 1500

Max. turning diameter (mm): 1800

Max. wheel tread diameter (mm): 1250

Max. weight of workpiece (x10 kN):

Max. continuously variable rotation rates of table (rpm): 250

Power of main drive (kW): 55 or 110

Type: KKB 150 N Vertical Wheel Lathe

Table diameter (mm): 1450

Max. turning diameter (mm): 2000

Max. wheel tread diameter (mm): 1250

Max. weight of workpiece (x10 kN):

Max. continuously variable rotation rates of table (rpm): 400

Power of main drive (kW): 362.5

Type: TOK 80 N Axle Lathe

Swing over bed (mm): 800

Swing over carriage (mm): 670

Max. distance between centres (mm): 3000

Max. weight of workpiece (x10 kN):







PRODUCTS / VERTICAL TURNING LATHES



KDC / KCI / KCM

KDC

Max. table diameter (mm): 10000

Max. swing diameter (mm): 13000

Max. turning height (mm): 8000

Max. weight of workpiece (x10 kN): 350

KCI

Max. table diameter (mm): 7000

Max. swing diameter (mm): 8000

Max. turning height (mm): 5000

Max. weight of workpiece (x10 kN): 150

KCM

Max. table diameter (mm): 3000

Max. swing diameter (mm): 3500

Max. turning height (mm): 2000

Max. weight of workpiece (x10 kN):





PRODUCTS / HORIZONTAL LATHES





TYPES: TTV / TZL / TCE / TCF / TCM / TRB / TRP / TOK

Max. swing over bed (mm): 6000
Max. length of workpiece (mm): 33000
Max. weight of workpiece (kg): 120000



PRODUCTS / SPECIAL MILLING MACHINES



GMC (Gantry type) - GMC 320 N / GMC 400 N

- 3D milling
- Drilling
- Reaming
- Boring
- Threading, envelope threading (helical motion) in all machining planes, i.e. XY, YZ, XZ
- Turning option with rotary table



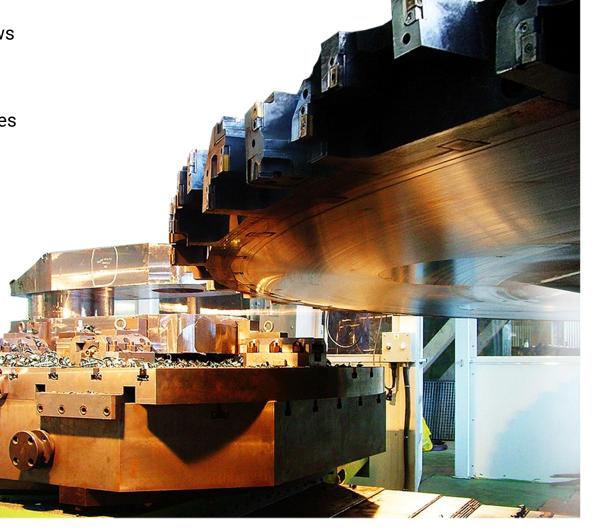
PRODUCTS / SPECIAL MILLING MACHINES



FS MACHINES: FS 550 CNC / FS 600 CNC

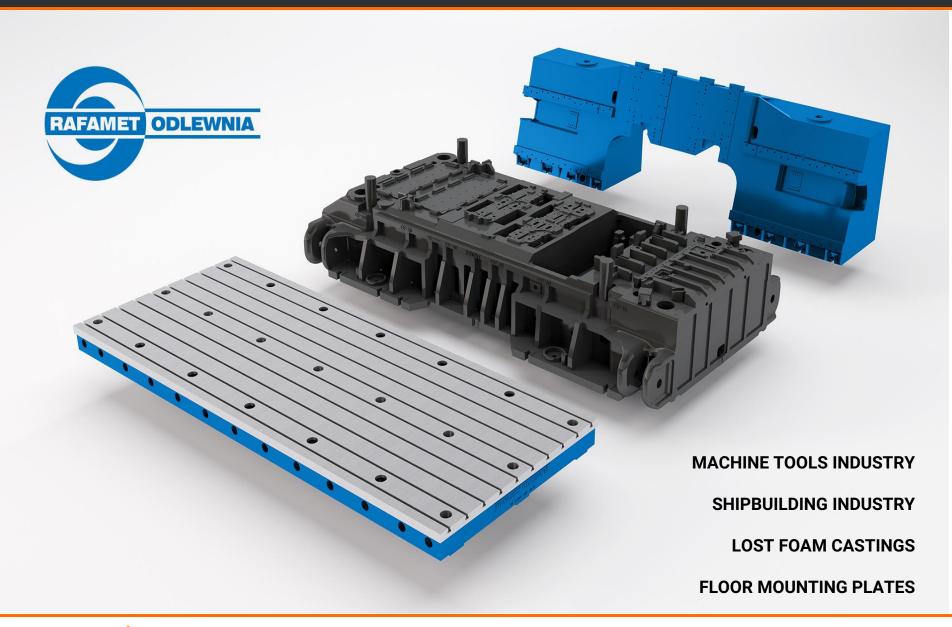
Heavy-duty milling of webs of crank-throws used in vessel engines crankshafts.

- Rough and fine milling of inner surfaces of crank-throw webs
- Rough milling of crank-throw pins



PRODUCTS / PRODUCTS OF RAFAMET FOUNDRY





PRODUCTS / CASTINGS



GREY IRON

- EN-GJL 200
- EN-GJL 250
- EN-GJL 300
- EN-GJL 350
- Castings of single-piece weight up to 40000 kg

DUCTILE IRON

- EN-GJS 400-18
- EN-GJS 400-15
- EN-GJS 400-12
- EN-GJS 500-7
- EN-GJS 600-3
- EN-GJS 700-2
- Castings of single-piece weight up to 30000 kg

SPECIAL ALLOY CAST IRON

- Ni-hard
- Ni-resist
- Castings of singlepiece weight up to 20000 kg





- •Full warranty support of supplied machines
- After-sales services



- On-line and at-site technical support
- Delivery of spare parts
- Overhauls & upgrades of supplied machines



- Horizontal & vertical turning
- Milling
- Horizontal boring
- Grinding
- Honing
- Milling & grinding of gears



INTEGRATED MANAGEMENT SYSTEM

- ISO 9001:2015 Quality
- ISO 14001:2015 Environment Protection
- PN-N 18001:2004 Occupational Health & Safety





Sales of products and services to Custmer's satisfaction while keeping safe work conditions and respecting natural environment is our Principal Goal.



Thank you for your attention

RAFAMET S.A.

Staszica 1 / 47-420 Kuznia Raciborska / Poland

tel. + 48 32 7213 300 / fax. + 48 32 419 1366 e-mail: rafamet@rafamet.com